

PRELIMINARY REPORT ON TORNADES IN THE UNITED STATES DURING 1947

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During 1947, 161 tornadoes were reported in the United States, which is 20 more than the annual average for the period 1916 through 1946. June brought the largest number, with 33 occurring during the month. May, the month in which the greatest number usually occurs, was second in the listing, with 27; April was third with 26. Tornadoes occurred during every month of the year except February, but in only 28 States. Six of the storms crossed State boundaries. Of the 161 storms, 25 were reported from Florida; 19 from Kansas; 16 from Missouri; 12 each from Texas and Oklahoma; and 1 each from 8 other States. Although the greatest number occurred in Florida, none were unusually destructive, and many were associated with hurricanes. Most disastrous was the tornado of September 19, at Apalachicola, in which 2 persons lost their lives, 15 were injured, and estimated property damage of \$250,000 occurred.

During the year there were 306 deaths from tornadoes, which is 73 more than the average annual toll. In only 9 years since 1916 has this number been exceeded. The greatest loss of human life took place in April when 196 were killed: 101 deaths occurred in Oklahoma and 66 in Texas when the disastrous tornado of April 9, swept through these States and Kansas.

Property damage for the year was approximately \$24,013,400, nearly double the amount of the yearly average. About one-half of it occurred during the month of April. Oklahoma stood highest, with losses for the year amounting to over \$9,000,000; followed by Louisiana, with \$2,201,900; and Texas, with \$1,908,800. Arkansas, Missouri, and Pennsylvania each suffered a little over \$1,000,000 loss.

The most violent tornado of the year appeared to be that of April 9, which swept across Texas, Oklahoma, and Kansas: 167 persons lost their lives, and property damage was estimated at nearly \$10,000,000. This is considered the longest, widest, and most destructive tornado ever to have occurred in that section of the country. The storm moved in a 221-mile path from White Deer, Tex., northeastward to St. Leo, Kans. It followed a northeasterly path of 101 miles in Oklahoma, entering Ellis County about 8 p. m., after demolishing Higgins, Tex. From Ellis County it moved into Woodward County, striking the town of Woodward, Okla., at 8:43 p. m., and destroying much of the northwestern half of the city. Since Woodward was the largest city in the tornado path, it suffered the greatest losses, with the death of 95 persons, injuries to 723, and property damage of about \$6,000,000. Continuing through Woodward and Woods Counties, the storm left Oklahoma and crossed the Kansas line at 10 p. m., west of Hardtner. One hundred and one persons lost their lives in the 3 counties of Oklahoma, 782 persons were injured, and property damage was estimated to be \$8,022,750. Along the path in Texas, 66 persons were killed, 201 were injured, and property damage of \$1,505,000 occurred. The path of the storm in Kansas was 40 miles long; \$200,000 worth of property was damaged, but there was no loss of life.

On May 31, a second tornado followed much the same path as the disastrous storm of April 9, in Texas and Oklahoma. It originated about 6:45 p. m., as a small tornado,

and struck Higgins, Tex., moving from the southwest to Ellis County, Okla. Due to the extensive destruction resulting from the previous storm, further damage from this one was negligible.

Still another very destructive tornado hit Oklahoma on May 31. It originated 15 miles southwest of Leedey in Roger Mills County. Fatalities, injuries, and the principal property damage were in Leedey, where 147 residences and 20 business places—comprising about three-fourths of the town—were demolished. Six persons lost their lives and 15 were injured, and property damage was reported at about \$1,000,000.

The agricultural section just south of Pine Bluff, Ark., was visited by a violent tornado on the afternoon of June 1. The toll of the twister was 35 killed, 300 injured, 500 homeless; and final estimates placed the property damage near \$1,000,000.

During June another tornado of great intensity first struck in Trumbull County, Ohio, on the 7th at 2:28 p. m. Three deaths occurred in the State and approximately 40 persons were injured. Estimated property losses were near \$100,000. Far greater destruction was wrought by this same tornado in the city of Sharon, Pa., very close to the Ohio line, where more than a million dollars worth of property was damaged in the storm's passage across Mercer County. The towns of Sharon, Mercer, and Grove City were chiefly affected, the greatest toll being in Sharon where, in addition to 3 fatalities, more than 300 persons were injured, 51 of them requiring hospitalization.

On December 2, a small tornado occurred at Phoenix, Ariz. This was an unusual phenomenon for Arizona, as only two such storms had been reported from that State during the entire period of 1916 through 1946. Two steel trailers, weighing 2,500 pounds each, were turned around and one turned over, and 500 feet of lumber were pulverized into kindling wood. The funnel cloud was clearly observed and photographed.

A series of tornadoes occurred in Arkansas, Mississippi, and Louisiana as the year declined, although some of these struck after midnight on December 31 and are not included in this year's toll. The most destructive of this series moved northeastward across Bossier, Webster, and the northwest corner of Claiborne Parishes, La. Apparently the tornado entered the town of Cotton Valley from the west, crossed it, and then turned abruptly around. By-passing the community on a westward track, and looping, it struck the business district again from the southwest. Fourteen fatalities were reported, as well as 200 injuries, and about one-fourth of the town was totally destroyed or damaged to the extent that complete rebuilding will be necessary. Next hardest hit was Haynesville, in Claiborne Parish, La., where 4 deaths and 20 injuries resulted. The total damage in the State was estimated at \$1,500,000.

The tabulations for 1947 are shown in Table 1, which follows. They are derived from data on "Severe Local Storms" appearing in the MONTHLY WEATHER REVIEW and in the CLIMATOLOGICAL DATA publications for the different Sections of the United States. The listing shows the approximate monthly and annual number of tornadoes, the number of resultant deaths and injuries, and the property damage caused in the several States and the country as a whole. A final and more complete report will appear in the UNITED STATES METEOROLOGICAL YEARBOOK for 1947.

TABLE 1.—Tornadoes and probable tornadoes

State*	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Alabama:													
Number	3												3
Deaths	6												6
Injuries	40												40
Damage (\$×1,000)	185.8												185.8
Arizona:													
Number												1	1
Deaths												0	0
Injuries												0	0
Damage (\$×1,000)												(³)	(³)
Arkansas:													
Number	1			1		1						3	6
Deaths	1			9		35						2	47
Injuries	12			50		300						101	463
Damage (\$×1,000)	168.5			200.0		1,000.0						214.0	1,582.5
Colorado:													
Number						3							3
Deaths						0							0
Injuries						3							3
Damage (\$×1,000)						810.0							810.0
Florida:													
Number			1		1	1	1		11	5	4	1	25
Deaths			0		0	0	0		2	0	0	0	2
Injuries			0		0	0	0		16	10	21	1	48
Damage (\$×1,000)			15.0		0	0.5	(³)		276.5	100.0	200.5	40.0	632.5
Georgia:													
Number	3			2	1							1	7
Deaths	0			0	0							0	0
Injuries	23			6	0							0	29
Damage (\$×1,000)	240.0			100.0	4.5						0.6		345.1
Illinois:													
Number				2		1							3
Deaths				0		0							0
Injuries				0		0							0
Damage (\$×1,000)				(³)		200.0							200.0
Indiana:													
Number	2				1		2						5
Deaths	0				0		0						0
Injuries	0				0		0						0
Damage (\$×1,000)	260.0				5.0		200.0						465.0
Iowa:													
Number				1		5							6
Deaths				0		1							1
Injuries				0		2							2
Damage (\$×1,000)				100.0		310.0							410.0
Kansas:													
Number				6	5	5	2			1			19
Deaths				0	0	1	0			0			1
Injuries				0	0	4	0			0			10
Damage (\$×1,000)				530.0	261.0	71.0	40.0			0.5			902.5
Louisiana:													
Number	1		1	1							5	1	9
Deaths	0		2	0							4	18	24
Injuries	0		0	0							32	220	252
Damage (\$×1,000)	1.2		100.0	1.7							599.0	1,500.0	2,201.9
Massachusetts:													
Number							1						1
Deaths							0						1
Injuries							0						0
Damage (\$×1,000)							(³)						(³)
Minnesota:													
Number						1	1	1					3
Deaths						1	2	1					4
Injuries						2	7	8					17
Damage (\$×1,000)						625.00	80.0	142.5					847.5
Mississippi:													
Number							2						2
Deaths							0						0
Injuries							0						0
Damage (\$1×1,000)							18.0						18.0
Missouri:													
Number	4			4	1	5			2				16
Deaths	6			15	0	1			0				22
Injuries	25			51	0	6			0				82
Damage (\$×1,000)	20.0			1,005.0	(¹)	200.0			10.0				1,235.0
Montana:													
Number							2	1					3
Deaths							0	0					0
Injuries							0	0					0
Damage (\$×1,000)							14.8	350.0					364.8
Nebraska:													
Number						8							8
Deaths						0							0
Injuries						8							8
Damage (\$×1,000)						175.0							175.0
New Mexico:													
Number					1								1
Deaths					0								0
Injuries					0								0
Damage (\$×1,000)					0								0
New York:													
Number							1						1
Deaths							0						0
Injuries							0						0
Damage (\$×1,000)							5.0						5.0
North Carolina:													
Number				1									1
Deaths				1									1
Injuries				4									4
Damage (\$×1,000)				150.0									150.0
North Dakota:													
Number							1						1
Deaths							8						8
Injuries							23						23
Damage (\$×1,000)							200.0						200.0

See footnotes at end of table.

TABLE 1.—*Tornadoes and probable tornadoes*—Continued

State*	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Ohio:													
Number.....	1				4	1			2				8
Deaths.....	0				0	3			0				3
Injuries.....	0				18	40			0				58
Damage (\$×1,000).....	250.0				2 115.0	100.0			50.0				2 515.0
Oklahoma:													
Number.....				6	5	1							12
Deaths.....				105	6	0							111
Injuries.....				785	27	0							812
Damage (\$×1,000).....				8,090.5	1,264.5	4.0							9,359.0
Pennsylvania:													
Number.....					4	1			1				6
Deaths.....					2	3			2				7
Injuries.....					0	30†			20				324
Damage (\$×1,000).....					2 100.0	1,000.0			100.0				2 1,200.0
South Carolina:													
Number.....				1									1
Deaths.....				0									0
Injuries.....				0									0
Damage (\$×1,000).....				5.0									5.0
Tennessee:													
Number.....	1												1
Deaths.....	1												1
Injuries.....	5												5
Damage (\$×1,000).....	(1)												(1)
Texas:													
Number.....				4	4	1				1	2		12
Deaths.....				66	1	0				0	0		67
Injuries.....				210	17	0				0	6		233
Damage (\$×1,000).....				1,537.6	2 250.0	0.2				100.0	21.0		2 1,908.8
Virginia:													
Number.....					1		2	1					4
Deaths.....					0		1	0					1
Injuries.....					2		0	0					2
Damage (\$×1,000).....					15.0		2 280.0	(1)					2 295.0
United States:													
Number.....	†15	0	2	†26	†27	†33	†14	3	16	7	12	6	†161
Deaths.....	14	0	2	196	9	45	11	1	4	0	4	20	306
Injuries.....	105	0	0	1,112	64	669	30	8	36	10	59	322	2,415
Damage (\$×1,000).....	2 1,125.5	0	115.0	2 11,719.8	2 2,015.0	2 4,495.7	2 837.8	2 492.5	2 436.5	2 200.5	821.1	2 1,754.0	2 24,013.4

*None reported for States not listed.

†Corrected for boundary-crossing tornadoes.

‡Considerable.

‡ Additional losses.

‡ Not reported.

